IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

Milan R. Kokta, et al.

Title:

MATERIALS FOR USE IN OPTICAL AND OPTOELECTRONIC

APPLICATIONS

Application No.: NEW APPLICATION

Filed:

HEREWITH

Atty. Docket No.: 1035-BI3918-CIP

MS PATENT APPLICATION **COMMISSIONER FOR PATENTS** PO Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, the undersigned brings the patents, publications, applications or other information identified in the attached:

\boxtimes	Form(s) PTO/SB/08A and/or PTO/SB/08	В
	Other: <u>n/a</u>	

to the Examiner's attention in the above-identified application. These references were cited in . Accordingly, in accordance with C.F.R. §1.98(d), , filed parent Application No. copies of the references are not being supplied herewith. Citation of such information shall not be construed as:

- an admission that the information necessarily is, or corresponds to, prior art with 1. respect to the instant invention;
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For each item of information listed that is not in the English language, the undersigned has provided a concise explanation of the relevance, such as through (i) an English language abstract, (ii) an English language equivalent application, (iii) reference to discussion in the application, or (iv) if cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action that indicates the degree of relevance found by the foreign office.

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STATEMENT UNDER 37 C.F.R. § 1.704(d)

If the a May 29, 2000:	bove-identified application is an original application filed on or after			
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	FEES DUE			
This Ir	nformation Disclosure Statement is being filed:			
\boxtimes	within three months of the filing date of a national application or within three months of entry of the national stage as set forth in § 1.491 in an international application. Therefore, no fee is required.			
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filed after the	vever, this Information Disclosure Statement is determined by the USPTO to be period specified in § 1.97(b), the undersigned hereby authorizes the Commissioner fee set forth in § 1.17(p) as shown on the attached Fee Transmittal.			
Date /	Respectfully submitted, Jeffrey S. Abel, Reg. No. 36,079 Attorney for Applicant(s) TOLER, LARSON & ABEL, L.L.P. P.O. Box 29567 Austin, Texas 78755-9567 (512) 327-5515 (phone) (512) 327-5452 (fax)			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449/PTO

Complete if Known Application Number NEW APPLICATION Filing Date HEREWITH First Named Inventor Milan R. Kokta Attorney Docket Number 1035-BI3918-CIP

Sheet 1 of 3 (use as many sheets as necessary)

U.S. PATENT DOCUMENTS

		Cite U.S. Patent Document No.1 Number Kind Code 2 (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA	3,655,439		SEITER	04/11/1972	
	AB	3,658,586		WANG	04/25/1972	
	AC	3,796,597		V.R. PORTER, et al.	03/12/1974	L
	AD	4,177,321		NISHIZAWA	12/04/1979	
	AE	5,741,724		RAMDANI, et al.	04/21/1998	
<u> </u>	AF	5,850,410		KURAMATA	12/15/1998	
	AG	5,530,267		BRANDLE, JR., et al.	06/25/1996	
	AH	6.104.529		BRANDLE, JR., et al.	08/15/2000	
	AI	3,883,313		CULLEN, et al.	05/13/1975	
	AJ	5.802.083		BIRNBAUM	09/01/1998	
	AK	2003/0007520	A1	KOKTA, et al.	01/09/2003	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No.1	Office 3	Foreign Patent Do Number		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Тв
	AL	EP	0 148 656	A1	AUZEL, et al.	11/16/1984		무
	AM						i	<u> </u>

PUBLICATIONS

Examiner Initials *	Cite No.1	Title of Publication		Date of Publication of Cited Document MM-DD-YYYY	
	AV	YUMASHEV K.V.,et al., "Co ²⁺ -doped spinels saturable al 1.3-1.6 μm solid state lasers", OSA TRENDS IN OPTCS ADVANCED SOLID STATE LASERS., Vol. 34, pp. 236-2 XP008017966	AND PHOT	vitches for ONICS.	
	AW	YUMASHEV, K.V., et al., "Passive Q-switching of 1.34-n using Co²+:LiGa₅O₀ and Co²+:MgAl₂O₄", CONFERENCE page. XP002242959	DIGES1, 200	JU, 1	
	AX	OKTYABRSKY, S., et al., "Crystal structure and defects GaN", MRS Internet J. Nitride Semicond. Res, G6.43, pp.	p. 1-6, 1999. _		
	AY	KLEBER, W., et al., "Zur epitaxie von galliumnitrid auf n spinell im system GaCl/NH ₃ /He", CRYSTAL RESEARCH Vol. 10, No. 7, pp. 747-758, 1975. (English Abstract)	H AND TECH		
	AZ SEIFERT, A., "Nachweis von stapelfehlern in GaN-epitaxieschichten mittels elektronenbeugung", CRYSTAL RESEARCH AND TECHNOLOGY, Vol. 10, No. 7, pp. 741-746, 1975. (English Abstract)				
Examine Signatur		Da	ate onsidered	Draw line thr	augh citation if not in

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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Sheet 2 of 3 (use as many sheets as necessary)

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	BA	6,533,874	B1	VAUDO, et al.	03/18/2003	<u> </u>		
	BB	4,627,064		AUZEL, et al.	12/02/1986			
	BC	4,000,977		FALCKENBERG	01/04/1977			
	BD					 		
	BE		<u> </u>					
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	BH							
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	BJ							
	BK			1				

FOREIGN PATENT DOCUMENTS Pages, Date of Name of Patentee or Columns, Lines, Where Relevant Foreign Patent Document Examiner Cite Publication of Applicant Office 3 Number Kind Code 2 Initials * No.1 Cited Document of Cited Document Passages or (if known) MM-DD-YYYY Relevant Figures Appear BL ВМ

		PUBLICA	TIONS		
Examiner Initials *	Cite No.1	Title of Publication			Date of Publication of Cited Document MM-DD-YYYY
	BW	OHSATO, H., et al., "Epitaxial orientation and a growth thin film on (1 1 1) spinel substrate", JOURNAL OF C 189/190, pp. 202-207, 1998.	n model of (0 0 RYSTAL GRO	• 1) GaN WTH, Vol.	
	вх	YANG, HF., et al., "Microstructure evolution of GaN substrate", JOURNAL OF CRYSTAL GROWTH, Vol.	buffer layer on 193, pp. 478-48	MgAl ₂ O ₄ 33, 1998.	
	BY	DUAN, S., et al., "MOVPE growth of GaN and LEDon JOURNAL OF CRYSTAL GROWTH, Vol. 189/190, pp	(1 1 1) MgAl₂O o. 197-201, 199	4", 8.	
	BZ	SHELDON, R., et al., "Cation Disorder and Vacancy I Nonstoichiometric Magnesium Aluminate Spinel, MgC CERAM. SOC., Vol. 82, No. 12, pp. 3293-3298, 1999	J • A12O3 , 3. A1	M.	
Examin			Date Considered		

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xaminer	Cite	as necessary) PUBLICATIO			Date of Publication of Cited Document MM-DD-YYYY
nitials *	No.1	KULESHOV, N.V., et al. "Co-doped spinels: promising	materials for so	olid	IMIM-DD-1111
	AAA	state lasers", LONGER WAVELENGTH LASERS AND 2138, pp. 175-182, 1994. XP008017848	JAN LIGHT		
	AAB	KULESHOV, N.V., et al., "Absorption and luminescer ion in MgAl ₂ O ₄ , Vol. 55, no. 5-6, pp. 265-269, 1993.			
	AAC	NIKISHIN, S.A., et al., "Gas source molecular bearing hydrazine on spinel substrates", APPLIED PHYSICS 19, pp. 2361-2363, 1998. XP000755963	LETTERS, Vol.	,	
	AAD	HAISMA, et al., "Lattice constant adaptable crystallog CRYSTAL GROWTH", Vol. 102, pp. 979-993, 1990.		VAL OF	
	AAE	TAMURA, K., et al., "Epitaxial growth of ZnO film on ScAIMgO ₄ (0001) substrates", JOURNAL OF CRYS 214-215, pp. 59-62, 2000. XP004200964	INE ORGINA		
	AAF	WYON, et al., "Czochralshi growth and optical prope aluminum spinel doped with nickel", JOURNAL OF C Vol. 79, pp. 710-713, 1986. XP002250057		·	l
	AAG	TSUCHIYA, T., et al. " Epitaxial growth of InN films substrates", JOURNAL OF CRYSTAL GROWTH, V 2000.	on MgAl₂O₄ (1 1 ol. 220, pp. 185-	1) 190,	
	AAH	KURAMATA, Akito, et al., "High-quality GaN epitaxi metalorganic vapor phase epitazy on (111) MgAl ₂ O. PHYS. LETT., Vol. 67, No. 17, pp. 2521-2523, 1998	, Judourate ,	/ PL.	
	AAI	MITCHELL, T., "Dislocations and Mechanical Prope spinel single crystals", J. AM. CERAM. SOC., Vol. 8 3316, 1999.	02, 110. 1 <u>-</u> , pp	gAl₂O₃ 305-	
	AAJ	HELLMAN, E., "Exotic and Mundane substrates for heteroepitaxy", BELL LABORATORIES, THC2, Mu	inay ruin, rusi	5 ° 705	
	AAK	KRUGER, M.B., et al., "Equation of state of MgAl ₂ (AMERICAN PHYSICAL SOCIETY, Vol. 56, No. 1,			
	AAL	KURAMATA, A., et al., "Properties of GaN epitaxia MgAl ₂ O ₄ substrate", SOLID-STATE ELECTRONIC 254, 1997.	0, 10 17, 100	_	
	AAM	GRITSYNA, V., et al., "Structure and Electronic st different compositions MgO • n MgAl ₂ O ₃ :Me", J. A No. 1, pp. 3365-3373, 1999.	ates of defects in	spinel of C. Vol. 82	
-			Date		
Exam	iner ature		Considered		rough citation if not in

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